

PATENT CLAIMS

1. An arrangement for using bioactive or osteoinductive material to build up a bone-based lateral support (18, 18') for at least one implant (6) arranged in an assigned jaw bone hole (2c) in preferably defectively or irregularly extending jaw bone (2) and where the implant is arranged so that it can be completely or partially covered by soft tissue, with or without the periosteum of the jaw bone, or by a unit applied to the jaw bone, for example a metal-based or polymeric, stiff membrane, and where the implant, when completely or partially covered, forms one or more spaces together with the soft tissue and the possible periosteum and/or the unit and the upper or lateral surface(s) of the jaw bone in question, and cell-containing body fluid penetrates into this space or these spaces from at least said jaw bone, characterized in that the bioactive or osteoinductive material consists of matrix molecules, growth factors and differentiation factors and/or peptides with growth-stimulating properties, etc., here called GSS, arranged in or on the implant, preferably on one or more outer side surfaces or one or more outer thread parts which in an initial stage is/are exposed from the jaw bone, which GSS, in a stage of incorporation following the initial stage, passes into each closed space and interacts or integrates with said cells and thus forms the bone-based lateral support for the implant.
- 35 2. The arrangement as claimed in patent claim 1, characterized in that the jaw bone hole (2c) and thus the implant (6) have a position which is offset in relation to the real center line of the

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- 5 jaw bone in the horizontal plane, so that the implant in said initial stage has first side surface parts or outer thread parts which have a greater degree of exposure than other side surface parts or outer thread parts, and after the stage of incorporation the bone-based lateral support is intended to give the first side surface parts or outer thread parts an increased degree of bone coverage or increased degrees of bone coverage.
- 10 3. The arrangement as claimed in patent claim 1 or 2, characterized in that two or more implants which are arranged along the horizontal extent of the jaw bone in assigned jaw bone holes are arranged in conjunction with defects or irregularities in depth and/or the lateral direction(s), and in that, in the stage of incorporation, they substantially fill the jaw bone defects and irregularities and give the implant substantially the same degree of recessing after the stage of incorporation.
- 15 4. The arrangement as claimed in patent claim 1, 2 or 3, characterized in that, in the case of a jaw bone greatly degenerated in the vertical direction, all the implants are given bone-based lateral supports extending substantially identically in the vertical direction.
- 20 5. The arrangement as claimed in patent claim 1, 2, 3 or 4, characterized in that first portions (6a) of each implant with a greater degree of exposure than other portions (6b) of the implant or implants are covered with GSS with a greater or lesser degree of concentration of GSS than the other portions.
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6. The arrangement as claimed in any of patent claims 1-5, characterized in that the unit (19) can be temporarily or permanently attached to the jaw bone, the unit, when temporarily attached, being applied during the initial and incorporation stages.
7. The arrangement as claimed in patent claim 1 or 6, characterized in that the unit has an internally curved surface (19a) which, when the unit is applied, is directed toward the side surface (6a) or outer thread part of the respective implant (6).
- 15 8. The arrangement as claimed in patent claim 1, 6 or 7, characterized in that the unit has an upper part (19b) which completely or partially extends over the implant's upper or outer surface (6d').
- 20 9. The arrangement as claimed in any of patent claims 1-8, characterized in that, at its surface covered by the wall of the jaw hole (2c), the implant works with body fluid accumulation in the layer or the gap (15) between the implant and the wall (2c).
- 25 10. The arrangement as claimed in any of patent claims 1-9, characterized in that the implant's outer surface (6a) exposed in the initial stage extends between 20-180°, preferably 30-120°, viewed in the circumferential direction of the implant.
- 30 11. The arrangement as claimed in any of patent claims 1-10, characterized in that the implant's outer surface exposed in the initial stage extends 20-80%, preferably 30-70%, viewed in the height direction (H).

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12. The arrangement as claimed in patent claim 1, 6, 7 or 8, characterized in that the unit is coated with GSS on its outer surface (6a) exposed toward the implant in the initial stage.